



ABSTRACT

This invention relates to a class of checkpoint genes and their polypeptide products which control progression through the cell cycle in eukaryotic cells. In particular, this invention relates to *Schizosaccharomyces pombe* rad3 gene, to its human homologue (ATR), and to their encoded proteins. The invention further relates to assay methods for selecting compounds which modulate the activity of the polypeptide products of these checkpoint genes and the use of the selected compounds in anticancer therapy.